

CLAIMS

What is claimed is:

- 1 1. A method of minimizing the duration of a risk-assessment scan, comprising:
 - 2 a) selecting a plurality of risk-assessment modules each including vulnerability
 - 3 checks associated with a risk-assessment scan;
 - 4 b) determining a first set of ports required for communicating with network
 - 5 components subject to the risk-assessment modules associated with the risk-
 - 6 assessment scan;
 - 7 c) executing a port scan of the first set of ports;
 - 8 d) determining a second set of ports based on the port scan, the second set of
 - 9 ports being unavailable for communicating with the network components
 - 10 subject to the risk-assessment modules associated with the risk-assessment
 - 11 scan; and
 - 12 e) disabling the risk-assessment modules associated with the second set of ports
 - 13 to minimize the duration of the risk-assessment scan.
- 1 2. The method as recited in claim 1, wherein a plurality of the risk-assessment
- 2 modules each have the same port associated therewith, and redundancy in the
- 3 first set of ports is removed prior to executing the port scan.
- 1 3. The method as recited in claim 1, wherein the risk-assessment modules are
- 2 user-specified.
- 1 4. The method as recited in claim 1, and further comprising storing a third set of
- 2 ports including the first set of ports and excluding the second set of ports.

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- 1 5. The method as recited in claim 4, and further comprising comparing the port
2 associated with each risk-assessment module with the stored third set of
3 ports.
- 1 6. The method as recited in claim 5, and further comprising performing the
2 vulnerability checks of the risk-assessment module if the port associated with
3 the risk-assessment module matches at least one port of the stored third set of
4 ports.
- 1 7. The method as recited in claim 5, wherein the risk-assessment module is
2 disabled if the port associated with the risk-assessment module does not
3 match at least one port of the stored third set of ports.
- 1 8. A computer program product for minimizing the duration of a risk-
2 assessment scan, comprising:
3 a) computer code for selecting a plurality of risk-assessment modules each
4 including vulnerability checks associated with a risk-assessment scan;
5 b) computer code for determining a first set of ports required for
6 communicating with network components subject to the risk-assessment
7 modules associated with the risk-assessment scan;
8 c) computer code for executing a port scan of the first set of ports;
9 d) computer code for determining a second set of ports based on the port scan,
10 the second set of ports being unavailable for communicating with the
11 network components subject to the risk-assessment modules associated with
12 the risk-assessment scan; and
13 e) computer code for disabling the risk-assessment modules associated with the
14 second set of ports to minimize the duration of the risk-assessment scan.
- 1 9. The computer program product as recited in claim 8, wherein a plurality of
2 the risk-assessment modules each have the same port associated therewith,

3 and redundancy in the first set of ports is removed prior to executing the port
4 scan.

1 10. The computer program product as recited in claim 8, wherein the risk-
2 assessment modules are user-specified.

1 11. The computer program product as recited in claim 8, and further comprising
2 computer code for storing a third set of ports including the first set of ports
3 and excluding the second set of ports.

1 12. The computer program product as recited in claim 11, and further comprising
2 computer code for comparing the port associated with each risk-assessment
3 module with the stored third set of ports.

1 13. The computer program product as recited in claim 12, and further comprising
2 computer code for performing the vulnerability checks of the risk-assessment
3 module if the port associated with the risk-assessment module matches at
4 least one port of the stored third set of ports.

1 14. The computer program product as recited in claim 12, wherein the risk-
2 assessment module is disabled if the port associated with the risk-assessment
3 module does not match at least one port of the stored third set of ports.

1 15. A system for minimizing the duration of a risk-assessment scan, comprising:
2 a) logic for selecting a plurality of risk-assessment modules each including
3 vulnerability checks associated with a risk-assessment scan;
4 b) logic for determining a first set of ports required for communicating with
5 network components subject to the risk-assessment modules associated with
6 the risk-assessment scan;
7 c) logic for executing a port scan of the first set of ports;

- 8 d) logic for determining a second set of ports based on the port scan, the second
9 set of ports being unavailable for communicating with the network
10 components subject to the risk-assessment modules associated with the risk-
11 assessment scan; and
12 e) logic for disabling the risk-assessment modules associated with the second
13 set of ports to minimize the duration of the risk-assessment scan.

1 16. The system as recited in claim 15, wherein a plurality of the risk-assessment
2 modules each have the same port associated therewith, and redundancy in the
3 first set of ports is removed prior to executing the port scan.

1 17. The system as recited in claim 15, wherein the risk-assessment modules are
2 user-specified.

1 18. The system as recited in claim 15, and further comprising logic for storing a
2 third set of ports including the first set of ports and excluding the second set
3 of ports.

1 19. The system as recited in claim 18, and further comprising logic for
2 comparing the port associated with each risk-assessment module with the
3 stored third set of ports.

1 20. The system as recited in claim 19, and further comprising logic for
2 performing the vulnerability checks of the risk-assessment module if the port
3 associated with the risk-assessment module matches at least one port of the
4 stored third set of ports.

1 21. The system as recited in claim 19, wherein the risk-assessment module is
2 disabled if the port associated with the risk-assessment module does not
3 match at least one port of the stored third set of ports.

- 1 22. A method of minimizing the duration of a risk-assessment scan, comprising:
2 a) selecting a plurality of risk-assessment modules for execution during a risk-
3 assessment scan, the risk-assessment modules each including vulnerability
4 checks;
5 b) determining a set of ports for communicating with network components;
6 c) executing a port scan of the set of ports;
7 d) modifying the set of ports based on the port scan, the set of ports being
8 modified to include only ports available for communicating with the network
9 components;
10 e) comparing the port associated with each selected risk-assessment module
11 with the modified set of ports; and
12 f) conditionally disabling the execution of the risk-assessment modules based
13 on the comparison to minimize the duration of the risk-assessment scan.
- 1 23. A computer program product for minimizing the duration of a risk-
2 assessment scan, comprising:
3 a) computer code for selecting a plurality of risk-assessment modules for
4 execution during a risk-assessment scan, the risk-assessment modules each
5 including vulnerability checks;
6 b) computer code for determining a set of ports for communicating with
7 network components;
8 c) computer code for executing a port scan of the set of ports;
9 d) computer code for modifying the set of ports based on the port scan, the set
10 of ports being modified to include only ports available for communicating
11 with the network components;
12 e) computer code for comparing the port associated with each selected risk-
13 assessment module with the modified set of ports; and
14 f) computer code for conditionally disabling the execution of the risk-
15 assessment modules based on the comparison to minimize the duration of the
16 risk-assessment scan.